

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A circuit device manufacturing method comprising:

forming separation grooves in a conductive foil from a top surface to form conductive patterns that are integrally connected at the bottom portion of the conductive foil;  
mounting a circuit element onto one or more of the conductive patterns; and  
sealing with a resin layer so as to cover the circuit element and fill the separation grooves; and

covering a portion of the resin layer, which is exposed from intervals separating the conductive patterns, with a resist,

wherein plasma is irradiated onto the top surface of the conductive foil, and  
wherein a rear surface of the conductive foil is eliminated until the resin layer is exposed at the rear surface of the conductive foil to electrically separate the respective conductive patterns, and

wherein contaminants attached to side surfaces of the separation grooves are removed by ions reflected by the side surfaces.

2. (Currently Amended) A circuit device manufacturing method comprising:

forming separation grooves in a conductive foil from a top surface to form conductive patterns that are integrally connected at the bottom portion of the conductive foil;  
mounting a circuit element onto one or more of the conductive patterns;  
irradiating plasma onto the top surface of the conductive foil, including the circuit element; and

sealing with a resin layer so as to cover the circuit element and fill the separation grooves; and

covering a portion of the resin layer, which is exposed from intervals separating the conductive patterns, with a resist,

wherein a rear surface of the conductive foil is eliminated until the resin layer is exposed at the rear surface of the conductive foil to electrically separate the respective conductive patterns, and

wherein contaminants attached to side surfaces of the separation grooves are removed by ions reflected by the side surfaces.

3. (Original) The method of Claim 1, wherein irradiation of the plasma is carried out prior to the step of mounting the circuit element.

4. (Previously Presented) The method of Claim 1, wherein irradiation of the plasma is carried out subsequent to the step of mounting the circuit element.

5. (Previously Presented) The method of Claim 1 or 2, wherein contaminants attached to the surfaces of the separation grooves are removed by the plasma.

6. (Original) The method of Claim 5, wherein the contaminants comprise organic or inorganic matter.

7. (Previously presented) The method of Claim 1 or 2, wherein the surface of the separation grooves are roughened by the plasma irradiation.

8. (Previously presented) The method of Claim 1 or 2, wherein the surface of the separation grooves are oxidized by the plasma irradiation.

9. (Original) The method of Claim 1 or 2, wherein the plasma irradiation is carried out using oxygen gas.

10. (Previously presented) The method of Claim 1 or 2, wherein the plasma irradiation is carried out using an inert gas.

11. (Original) The method of Claim 1 or 2, wherein the conductive foil is formed of a metal having copper as the principal material.

12. (Previously presented) The method of Claim 1 or 2, wherein the circuit element comprises a semiconductor element that is electrically connected to one or more of the conductive patterns via metal wires.

13. (Canceled)

14. (Previously Presented) The method of claim 1 wherein the separation grooves extend only partially through the conductive foil.